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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chingwei Peter Cheng

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EXAMINER

TARAE, CATHERINE MICHELLE

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/607,914

Applicant(s)

CHENG ET AL.

Examiner

C. Michelle Tarae

Art Unit

3623

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-13,15-17,19-27,29-31 and 33-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-13,15-17,19-27,29-31 and 33-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The following is a Non-Final Office Action in response to the Pre-Appeal Conference Request received on February 2, 2006. Prosecution has been reopened based upon the decision held by the Pre-Appeal conference dated February 24, 2006.

Claims 1-3, 5-13, 15-17, 19-27, 29-31 and 33-41 are now pending in this application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-3, 5-13, 15-17, 19-27, 29-31 and 33-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over McArdle et al. (U.S. 6,622,126).

As per claim 1, McArdle et al. discloses a computer-implemented method of categorizing an individual customer, comprising the steps of:

selecting and storing in a computer a measure on which the status of the individual customer is to be analyzed (col. 1, lines 60-67; col. 4, lines 45-48; Customers are evaluated on their movement between segments over time, where the customer's status is based on their purchasing behavior during a given time period. Their status places them in a particular customer segment.);

selecting and storing in the computer a calculation period (col. 3, lines 42-50; A time period is indicated in the computer in order to analyze the customer, where the time period may be monthly, quarterly, weekly, etc.);

causing the computer to compute a lifecycle factor for the individual customer by tracking the difference of the quantity of purchases made by a customer between two selected historical time periods (col. 3, lines 10-19 and 27-29; col. 4, lines 50-65; Customer's overall purchasing trends may be determined by analyzing their purchasing history and migration patterns, therefore, their growth or size with respect to purchases may be computed, where their growth or size is their lifecycle factor as it is described on page 5 of the Specification of the instant application.); and

categorizing the individual customer by evaluating a plurality of categorization criteria, at least one of the plurality of categorization criteria including the computed lifecycle factor (col. 3, lines 51-63; Customers are categorized into different customer segments based on their movements between customer segments, which is determined based on their purchasing behaviors and patterns.).

McArdle et al. does not expressly disclose causing the computer to compute a lifecycle factor for the individual customer *by determining an absolute value of a difference of the selected measure and by multiplying the determined absolute value with a percentage measure growth*. However, as discussed above, McArdle et al. does disclose tracking the difference of the quantity of purchases (i.e., a selected measure) made by a customer between two selected historical time periods and categorizing the customer based on that difference. McArdle et al. provides an example of tracking a

customer who has purchased nothing in May and has purchased women's clothing in June (col. 3, lines 28-30). It is old and well known to take the absolute value of a difference or to take the percentage of a difference to acquire a quantitative understanding of the degree of the difference. For example, a factor of 1% would represent a small degree of change in purchasing behavior, whereas a factor of 80% would represent a greater degree of change in purchasing behavior. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art for the system of McArdle et al. to compute a number by *determining an absolute value of a difference of the selected measure and by multiplying the determined absolute value with a percentage measure growth*, where the number represents the customer's change in quantity of purchases because such a percentage would provide a business with a quantitative measure with which to characterize the customer. The more accurate a business is in characterizing a customer, the better it can target the customer (col. 1, lines 14-24).

As per claim 2, McArdle et al. discloses the method of Claim 1, wherein the measure is selected from a group including number of orders, quantity of purchase and revenue attributable to the individual customer (col. 3, lines 42-50).

As per claim 3, McArdle et al. discloses the method of Claim 1, wherein the calculation period is selected from a group including daily, weekly, monthly, quarterly, semi-annually and yearly (col. 3, lines 47-49).

As per claim 5, McArdle et al. discloses the method of Claim 1, wherein the categorizing step assigns a customer to one of a plurality of stages according to which

of the plurality of categorization criteria is satisfied (col. 3, lines 1-4 and 28-30; A customer is categorized into a customer segment based on his/her purchasing pattern.).

As per claim 6, McArdle et al. discloses the method of Claim 5, wherein the plurality of stages includes at least one of New, Growing, Stable, Declining, Defected and Insignificant (col. 3, lines 42-57; The customer segments indicate growing and declining stages depending on whether customer increased or decreased their purchases over a given time period.).

As per claim 7, McArdle et al. does not expressly disclose the method of Claim 6, wherein the New stage is based upon a date at which an account is established for the customer. However, a customer classified in the "Inactive Shopper" segment may be considered a new customer as a new customer with a new account may not have made any purchases yet, thus being classified as "inactive." Additionally, it is old and well known in the art to evaluate customers based on a characteristic of their accounts (col. 1, lines 28-31) such as date of establishment. At the time of the invention, it would have been obvious to a person of ordinary skill in the art for the system of McArdle et al. to determine that a customer is in a New stage based on when they established an account (such as a preferred shopper card, col. 1, lines 28-29) because doing so provides a business with the ability to group new customers based on a time frame of having an account and therefore, apply specific marketing techniques to customers that fall within that category.

As per claim 8, McArdle et al. discloses the method of Claim 1, further comprising the step of selecting the customer according to at least one of a plurality of

customer selection parameters (col. 3, lines 42-56; Customers are selected based on various sales data.).

As per claim 9, McArdle et al. discloses the method of Claim 8, wherein the customer selection parameters include market segment, customer category, operating unit and geography (col. 3, lines 42-63).

As per claim 10, McArdle et al. does not expressly disclose the method of Claim 9, wherein the geography customer selection parameter includes at least one of a plurality of geographical sub-parameters, including area, country, region, state/province and city. However, it is old and well known to use country, region, state/province and city as indicators of a geographical region. At the time of the invention, it would have been obvious to a person of ordinary skill in the art for the system of McArdle et al. to use at least one of country, region, state/province and city to indicate a geography of a customer as doing so provides another data set with which to classify the customer, thus providing another parameter with which to apply targeted marketing techniques to the customer, which is a goal of the system (col. 1, lines 14-28).

As per claim 11, McArdle et al. discloses the method of Claim 8, wherein the customer selection step includes the step of accessing a remote database wherein customer information for a plurality of customers is stored (col. 3, lines 34-39).

As per claim 12, McArdle et al. discloses the method of Claim 11, wherein the accessing step accesses the database over a computer network (col. 2, line 64).

As per claim 13, McArdle et al. discloses the method of Claim 12, wherein the computer network includes the Internet (col. 5, lines 17-24).

Claims 15-17, 19-27, 29-31 and 33-41 recite substantially similar subject matter as claims 1-3 and 5-13 above. Therefore, claims 15-17, 19-27, 29-31 and 33-41 are rejected on the same basis as claims 1-3 and 5-13 above.

### ***Response to Arguments***

4. Applicant's arguments are moot in view of the new grounds of rejections.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Garg (U.S. 6,044,357) discusses a marketing system that tracks customer purchasing behavior;
- Gardenswartz et al. (U.S. 6,055,573) discusses a purchase behavior classification of a customer;
- Walter et al. (U.S. 6,334,110) discusses a system for analyzing customer transactions;
- Geerlings (U.S. 6,073,112) discusses a system for merchant-to-customer communication; and
- Lazarus et al. (U.S. 6,430,539) discusses a predictive modeling of customer behavior.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Tarae (formerly, C. Michelle Colon) whose telephone number is 571-272-6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 571-272-6729.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. Michelle Tarae  
Patent Examiner  
Art Unit 3623

April 29, 2006